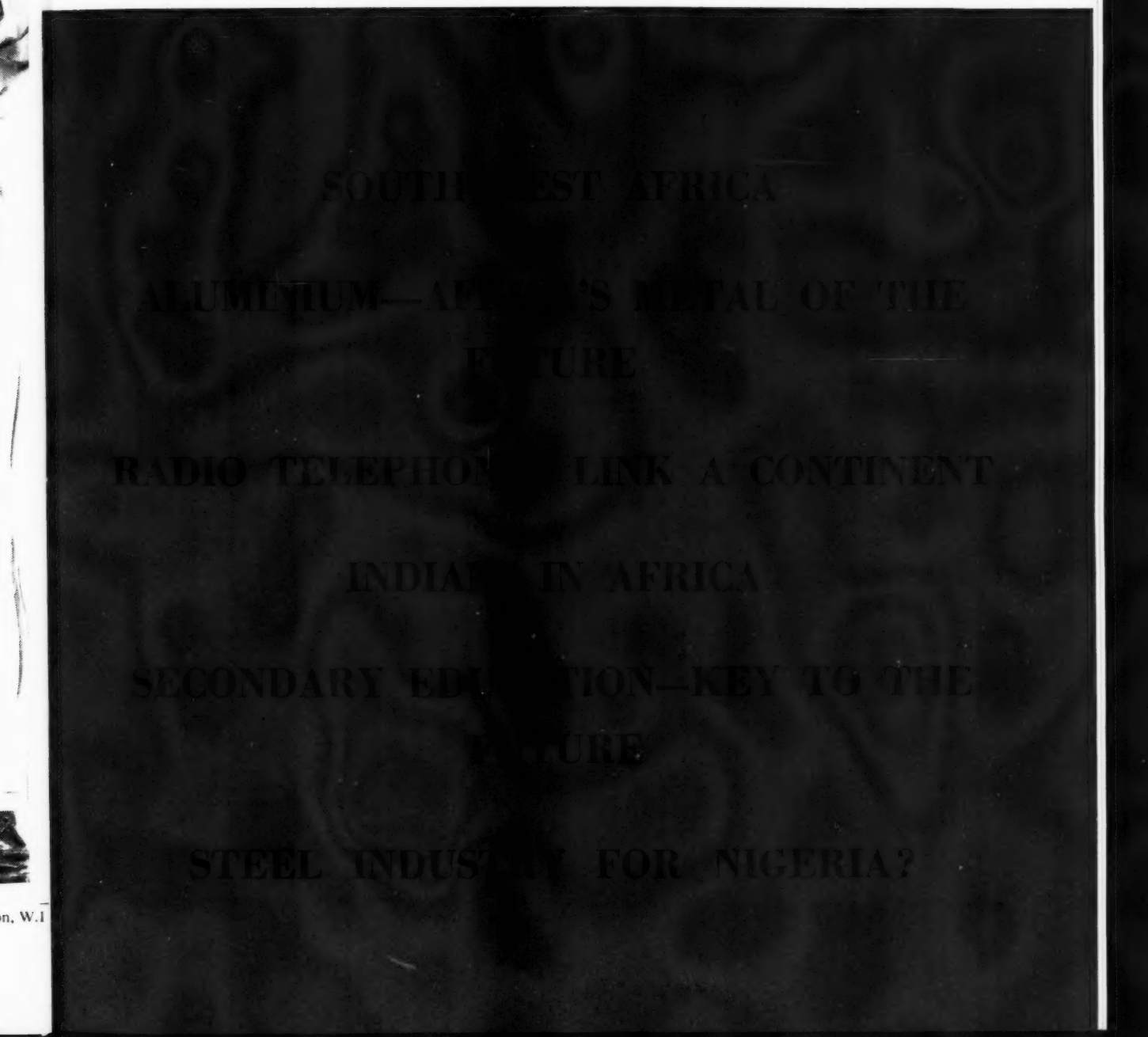
# AFRICA TRADE and DEVELOPMENT

Vol. 3 No. 2 FEBRUARY 1961 One Shilling



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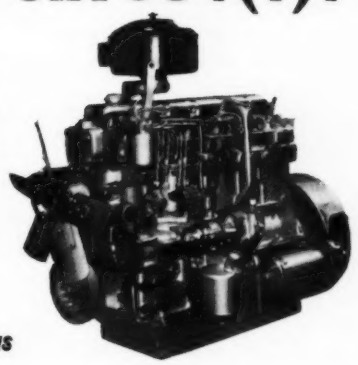

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AFRICA TRADE AND DEVELOPMENT
58 PADDINGTON STREET, LONDON, W.1
*Editor:* E. M. BIRD
*Features Editor:* M. FREEDMAN

# South-West Africa

SOUTH-WEST AFRICA, yet another thorn in the side of the United Nations, is becoming a complex of juridical tangling and political dispute where issues are easily lost from sight.

The Union of South Africa administers the Territory under a Mandate of the old League of Nations through the Treaty of Versailles. What is in dispute between the Union and the UN is not the international status of South-West Africa—but the exact nature and extent of that status.

Following the Addis Ababa conference of independent African States last year, Ethiopia and Liberia have instituted proceedings at the International Court of Justice regarding the Union's conduct of its administration of the Territory. The application to the Court is based on the contention that the policy of *apartheid* and racial discrimination is not compatible with the mandatory Powers obligations to further the wellbeing of the indigenous population. There are also allegations that the Union has :

1. Limited the franchise to the white population of the territory ;
2. Segregated Africans from the white areas ; and
3. Prevented the Africans from forming political parties.

At this point, however, legal difficulties arise. Article 7 of the mandate, under which the proceedings have been brought, was held by the International Court in 1950 to be still in force, and the Union therefore, was under an obligation to accept the Court's compulsory jurisdiction. Article 7, however, may only be invoked in cases of disputes between an individual state and the Union, and even then only after negotiations have failed. It does not seem to give any right to a single member (of the League) to bring a complaint on behalf of all members. Although Ethiopia and Liberia are former members of the League, the wisdom of their action in seeking a judgment is thus open to question. The Union, by challenging their right to bring the action as well as raising other issues concerning the jurisdiction of the Court, may be able to keep the matter *sub judice* for a long time.

On the other hand, the 1950 advisory opinion of the Court did declare unanimously that the mandate continued to exist despite the demise of the League, and that South Africa, acting unilaterally, could not modify the international status of the Mandated Territory. This implies that the Union owes certain obligations to the United Nations, who were held by the Court to be the other party to the mandate in succession to the League.

The General Assembly, on thirteen occasions, has requested the Union to enter into a trusteeship agreement, but on this point the 1950 opinion held that South Africa was not obliged to put the Mandated Territory under the UN Trusteeship Council. Thus the Union government has been able to fight a successful series of delaying actions.

Essentially, the question is a political one, but the issue is whether it is best to tackle it through legal channels.

## *Sacred Trust*

The mandate system has, since the last war, given way to trusteeship aimed at independence and popular self-government. In this context, South Africa has steadily refused to accept the obligations of the mandate which refers to "peoples not yet able to stand by themselves" and "the wellbeing and development of such peoples form a sacred trust of civilisation".

Partition of the Territory was suggested in 1958, but this was ruled out because of UN reluctance to place Africans under permanent South African authority.

The alternative, is to bring pressure on the Union government to surrender the mandate and transfer it to another power. In this connection South Africa herself has intimated that she may be willing to come to some agreement with the remaining Treaty powers—Britain, France and the United Nations. As one of the principal "Allied and Associated Powers" which conferred the mandate on the British Crown to be "exercised on his behalf" by the South African government, Britain has a responsibility in this matter which goes beyond that of the ordinary UN member. Yet British government policies have been far from unequivocal recently. Generally speaking, Britain's record in arranging a smooth transition from colonial rule to national independence is a remarkably good one, and it is all the more surprising therefore, that British action in respect of South-West Africa should be so out of keeping with her general policy.

Only three days after accepting a House of Commons motion requiring it to take action in the UN to ensure that the South African government carries out the solemn obligations it undertook in accepting the mandate, the British government chose to isolate itself from almost the entire General Assembly by abstaining on a motion to restrain South Africa from applying *apartheid* laws to the mandated territory. Out of six resolutions before the Committee, Britain abstained on five, supporting only the one inviting the UN specialized agencies to assist in the mandated territory.

Equally disturbing is the report that Senator Wayne Morse of the American UN delegation told an Overseas Press Club function in New York that he declined to cast a vote in Committee *on his own proposal* that a UN commission should visit South-West Africa, and that this abstention on the part of his delegation was directly due to British intervention. The diplomatic correspondent of the *Washington Post* has gone further and asserted that Mr. Macmillan personally interceded with the US President in order to bring about this result, as well as the further US abstention on the Afro-Asian motion regarding colonialism, which did considerable damage to US prestige.

Actions such as these can only cause the most grievous harm to Britain's standing in Africa and the world.

## *COMMENT*

### Africa divergent ?

FOLLOWING closely on the conference of the twelve French-speaking African states which met just before Christmas at Brazzaville, two events have taken place. First, came the announcement of the Ghana, Guinea and Mali union, and then in the new year, the African "summit" conference held at Casablanca. Are we thus witnessing the emergence of rival African blocks? And if so, then are such blocks based on those dismal cold war politics which have so bedevilled the affairs of other continents ? Such questions, although they may spring rapidly to the minds of some observers, indicate a simple minded and superficial approach to African problems. Certainly there are, on the surface, indications of cold war rivalries.

The Brazzaville group in many instances support Western policies, while the Russians take the same line on the Congo, for example as do the six states who met at Casablanca. Doubtless also, there is disenchantment with certain Western policies, particularly in the Ghana, Guinea, Mali union. France's war in Algeria and her insistence on atomic explosions in the Sahara, British policy towards South Africa, and finally what is regarded as Western policy in the Congo, have all helped to bring about this attitude. Equally, Russia has offended the majority of African states first by unilateral action in the Congo, and more recently by blocking the entry of Mauritania into the UN.

Anything approaching traditional cold war polarisation is simply not evident from any examination of the facts. The Brazzaville conference for instance, while not wishing to break their ties with France, strongly supported self-determination for Algeria. Likewise, the conference offered no support to Colonel Mobutu.

The main object of the Casablanca conference, it has been suggested, was King Muhammad V's desire to counter the Brazzaville twelve, who all support Mauritanian independence. The composition of the conference certainly gives no comfort to cold war theorists, traditionalist states like Morocco and Libya making oddly matched partners for the "radical" group led by Ghana and Guinea.

The basis of the various recent groupings is the natural desire of African states to settle African problems themselves. The problems with which they are faced are so complicated that it is unlikely that the new states of Africa will become other than non-aligned in world affairs. Both East and West would be wise to recognise this fact.

# A Flying Doctor Service for West Africa

Doctor and Mrs. Neil Duncan, representatives of the Flying Doctor Service of Africa, recently concluded a brief visit to Northern Nigeria. They held discussions with the Government and Missions there, and made a preliminary survey, with a view to establishing a Flying Doctor Service similar to that which has been built up over the past 30 years in the "bush" regions of Australia.

Discussions with the Ministry of Health have shown that a good base could be established in the Province of Sokoto at Gusau, a town on the railway where supplies can easily be brought in. There is an aerodrome equipped with a radio beam, and other necessities would be catered for. The Ministry also lent a Land Rover for surveying the area of the Sokoto Province, and the Northern part of Ilorin and Niger Provinces. This was a wide-spread tour of the field suggested. Dispensaries and hospitals have been examined, especially the hospital which might be available as the radio base ; and of course airstrips, or possible spots for airstrip construction.

The St. John's Ambulance Brigade and the Red Cross have shown themselves friendly and cooperative and the Nigerian Broadcasting Corporation has given good publicity. Discussions were also carried on with various adult education officers, missionaries and others. Dr. Duncan was able to see the Dispensers' Training School, and was heartened to find a higher standard of training than had been expected.

Owing to the kindness of the Ministry of Internal Affairs, which lent a Land Rover equipped with full projection gear and a trained projectionist/driver, "Hobbles on the Bush" has been shown to all kinds of authorities as well as to the people at large.

Dr. and Mrs. Duncan have been guests at Government House, and there met the Residents of the three Provinces involved in the survey. Later Dr. Duncan was received by the Sultan of Sokoto in Council, where the scheme was discussed. The Sultan referred to the Flying Doctor Service as a blessing to his people, and it is hoped that the Council will give the required permits.

Dr. Duncan, who is now in general practice in Birmingham, was formerly a colonial medical officer in Africa and later worked in the Flying Doctor service in Australia. He has stated that several charitable trusts have shown interest, and it is hoped that Government help will be forthcoming.

The Flying Doctor Service of Africa has as its aims :

> To promote the relief of suffering among people of any race or religion and in all parts of the world and in particular on the Continent of Africa.
>
> To foster, promote and safeguard the health and welfare of the people of Africa by making available medical, nursing and other technical services.
>
> To establish and assist in the establishment of clinics, schools, libraries, blood transfusion services, welfare services, agricultural and stock research centres, and any other organizations to promote development in the areas served by the Association.

# *Aluminium–Africa's Metal of the Future*

*by H. Hellmann*

AFRICA'S MINERAL RESOURCES, strangely enough, are situated in large but clearly separated areas. East Africa, including the Congo province of Katanga, is rich in copper and allied metals. South Africa, as is well known, is the centre of gold and diamond mining, although Ghana, Liberia, and Sierra Leone also possess sizeable deposits of this type of natural wealth. North Africa, with a less important outcrop in the Eastern Egyptian peninsula of Sinai, is on the way to becoming one of the major oil areas of the world, whereas the smaller oil finds in Nigeria, Gabon, Angola, and the former French Congo are likely to become only nationally important. North-West Africa is immensely rich in iron and phosphate ores.

But the whole of West Africa, along almost the entire coastline from 10 to 12 degrees latitude (N) (in Guinea) to 17 to 18 degrees (S) (in Angola), a distance of roughly 1,700 miles, has been proved to be an immensely rich storehouse of alumina in the familiar form of bauxite ores.

As a metallic element, aluminium has become known to humanity only in the last 150 years. Its industrial and commercial use became possible when electrolytic melting, the only efficient form of separating the metal from the ore slag, could be based upon the growing availability of cheap water power, and also upon the immediate use near the pithead of cheap lignite or inferior small coal in huge thermal power stations. An entirely novel form of providing primary energy for alumina electrolysis from cheap natural gas is still in the development stage in the US and in France.

Modern aluminium smelting had its origins in France and Germany, but the biggest aluminium producers are now the United States, Canada, Norway and Switzerland, all because of their immense hydro-electric resources.

Raw material supplies were not a great problem in the beginnings of the aluminium industry. Sufficient deposits of alumina (called Bauxite after the French town of Baux) were found, though often in moderate quantities, throughout Europe. At the outset Cryolith, a composite fluoride of sodium and aluminium from Greenland, which melts much more easily, was also used, whereas now the Greenland ores are too valuable for this purpose and are used only as an admixture to normal alumina smelting, and/or for the production of heavy chemicals. Up to the second world war, France, with her large quantity of natural alumina of up to 60 per cent purity, was the chief supplier of aluminium ores.

The war, for obvious military and industrial reasons, led to an immense expansion of smelting capacities in all the industrial countries, and these are still growing. This must lead, in the foreseeable future, to the exhaustion of European bauxite deposits which, apart from France, are also worked in important measure in Italy, Greece and Yugoslavia.

Western European consumption of aluminium, in the countries of the European Economic Community is at present hovering round an annual level of between 400,000 and 500,000 metric tons. Consumption shows an average annual increase, since the last war, of between five and ten per cent. This is much more than the growth rate of any other metal or indeed non-metallic, competing material, except plastics. In spite of this, Europe still lags far behind the United States in aluminium use. Per head of population the US shows an annual use of about 20½ lb., the UK 14.3 lb., West Germany 10.8 lb., France 7.7 lb., Norway and Switzerland 8.8 lb. each, Italy 5.1 lb., and the Netherlands 3.1 lb.

To make up this leeway, much capital and effort is now being invested. The EEC, which today supplies about 10.7 per cent of the total aluminium output of the whole world, intends to raise this to 14 per cent by 1962. Britain, Switzerland and Norway, which together now make another 4 per cent, are also expanding their capacities. But the bauxite reserves of Western Europe are estimated at only four per cent of the known free world reserves.

The French, therefore, as the former leading suppliers of bauxite, and since the last war also the British, have carried out long-term prospecting programmes for better and larger bauxite deposits in their former colonies. They followed the incidental reports of former explorers and soon uncovered immense bauxite strata all along the West African plateaux and highland slopes which follow the coast at distances not too far from the sea and often rising up to 4,000 feet above sea level. Proximity to the sea or navigable rivers is decisive, because alumina, as the ore of a light metal, is bulky for its weight and overland transport would often make its mining uneconomic. Rivers, for cheap electric power, are at least as essential because, even if actual ore melting will not be the first stage of African aluminium exploitation, the crude bauxite ore has to be washed and calcinated before its transport becomes sufficiently rewarding.

Calcinated alumina, which is hygroscopic (i.e. attracting moisture), cannot be stored in the open ; thus African supplies of calcinated ore only become interesting for European and American metal producers if they can reckon with regular deliveries in quantity. (The crude bauxite ores can be stored without loss of quality but their great bulk normally precludes their use in the smelters.)

It is understandable that the new nations of Africa would prefer to go the whole way towards reducing transport difficulties, and to earn higher incomes by melting the ores themselves, and so become exporters of metallic aluminium. But aluminium smelters cost enormous sums, their erection requiring the creation of subsidiary giant power stations, dams, transport networks etc. Thus, the well-known Volta River Project in Ghana was estimated six years ago by the leading British consultants to cost £60.8 million at 1955 prices. This would only pay for the hydro-electric plant and transmission network. However, for bauxite mining, alumina calcination kilns, transport equipment, and the intended aluminium smelter, the Kaiser Aluminium and Chemical Corporation of the USA, assessed the additional cost in 1959 to amount to another $170 million (over £60 million). The Soviet Union, it may be recalled, has offered to finance the Volta Project only, but nothing has yet been heard of the second half of the requirements for a full-

grown Ghanaian aluminium industry. This seems a pity, as up to date, the entire natural store of alumina in West Africa has been estimated at between 400 and 800 million tons of bauxite of 45 to 60 per cent alumina content, i.e. at least 40 per cent of the known deposits of the free world.

However, in a much more modest way, not to be compared with the ambitious Volta River Project, West Africa is already sending growing quantities of high-grade alumina to Europe and the US, thus preparing, step by step, a far more impressive future development of West African aluminium industries. An alumina plant is already working in Ghana and delivering purified ores mainly to the UK, and smaller quantities to Germany. But the bulk of the alumina output in West Africa is based on French initiative. France's post-war scarcity of capital forced her to shy away from gigantic projects but French small and medium scale enterprise has gained valuable experience and has led to improvements. The two large French concerns Pechiney and Ugine have built, in the former French mandate of the Cameroun first a dam near Edea on the Sanaga river, then a hydro-electric plant, and finally an alumina works. This is now shipping large quantities of alumina to the French aluminium smelters of Pechiney and Ugine. In the end, Edea saw also the erection of the first African aluminium smelter, which receives its bauxite through cheap water transport in two special bulk carrier ships. Edea's aluminium output was nearly 32,000 tons in 1958, over 42,000 tons in 1959 and an estimated 50,000 tons in 1960. The operating company, ALUCAM, sold 17,000 tons in 1959 to its French parents for manufacturing purposes, the rest going to Germany, Belgium, and other European countries.

A much bigger project is now being completed in Guinea by FRIA Compagnie Internationale pour la Production de l'Alumina en Guinée. Its initial capacity is 480,000 tons of alumina per annum. FRIA's capital of $34 million has been contributed, again under French leadership, jointly by French, British, German, Swiss and US interests. The French Pechiney group owns 18 per cent, the Swiss AIAG 10 per cent, the German VAG 5 per cent. Shipments of alumina started on 4 May 1960 with a delivery of 6,000 tons of alumina to the AIAG smelters in Norway. Production of metallic aluminium will start later.

Pechiney and Ugine are constantly carrying on alumina prospecting in Guinea, Mali, and Senegal (Senegal also mines aluminium phosphates, which are used for making phosphatic fertilizers and aluminium). In their last annual account Pechiney triumphantly reported the speed and smoothness with which the giant FRIA undertaking was built up, the construction period being only three years. FRIA is carrying on design studies for a huge dam and power plant on the Konkouré river.

In Portuguese Angola, Pechiney is supervising the construction of an aluminium smelter for Aluminio Portuguese (Luanda). A big hydro-electric power station is already working there on the Cambamba river. Initial capacity of the smelter is to be 25,000 tons per annum to be available from 1962, and this capacity is to be doubled later. Alumina is shipped to Angola by FRIA, but later local bauxite will be mined. The metallic aluminium will be used for manufacture in Portugal.

These successes have spurred Ghana to press forward with the combined Volta and smelter project. It is now intended to build an aluminium rolling mill, to be ready by 1962, for an investment of £1 million. The capital is to be found jointly by the Ghana government and Aluminium Ltd of Canada (ALCAN). But the aluminium smelter, projected for the new town of Tema, is still no nearer construction. Aluminium for the rolling mill is, for the time being, to be imported from Edea, from Europe and from Canada. This would make manufacture, of course, rather expensive, as long as no Ghanaian aluminium ingots can be used. But hope has not yet died that the Volta River and Aluminium Smelter project will eventually come to full fruition.

# INDIANS IN AFRICA

*by Dev Murarka*

THE INDIAN EMIGRATION to Africa is specifically a nineteenth-century phenomenon. Most of the problems which have been created by it are due to the special circumstances and conditions in which it took place. At the time the emigration started, Indian economy was being ruined due to the Industrial Revolution in England. This coincided with European expansion into Africa. The abolition of slavery made this expansion difficult as there was no other source of cheap labour. The colonists found India in a position to supply such labour and the British Government of India stimulated Indian emigration by various means.

The very first batch of Indians in Natal, however, were ill-treated to such a degree that after an enquiry, emigration was suspended between 1866 and 1874. It was resumed under pressure from plantation owners and settler farmers who were facing ruin due to shortage of labour. The neglect and ill-treatment of Indians, nonetheless, continued unabated. All through the sad history of Indian emigration Indians have been denied human rights and forced to live an unsettled life as a community. At a meeting in Kenya in 1921, one of the speakers, Dr. Burkitt, wanted segregation "for the sake of decency, morality and public health". He also wanted restriction of political power to Britons only because it was, "their Divine prerogative and responsibility". The struggle of Indian emigrants, therefore, has always centred round two big issues, economic welfare and political rights. Even before they have managed to

acquire these rights, the whole existence of Indians in Africa has been thrown into question by the spread of African nationalism.

There are a little over* 700,000 Indians in Africa. Most of these are in the Union of South Africa or the territories of British East Africa. A small number of Indians is to be found in most other parts of Africa. Thus the position of Indians in South and East Africa is crucial. In South Africa there are about 450,000 Indians, forming 3 per cent of the population. Most of them live in the province of Natal (12.5 per cent of population) and the Transvaal (1 per cent). Most of them are plantation workers, but the number of small shopkeepers and clerical workers is increasing. The Indians came to South Africa under the "indenture" system, a form of contract which reduced them to the level of slaves without actually calling them so. The Union Government would like to repatriate them to India but they are unwilling. They have hardly any political rights and it is worth remembering that Mahatma Gandhi, began his career in Africa organizing the South African Indians for a campaign against white oppression.

The opposition, however, has changed little. Indians in South Africa share the similar humiliations to the Africans. They have very little contact with India and a vast majority of them are now second or third generation South Africans. A new class of professional and trading people is establishing itself within the Indian community. In spite of attempts by the Government to divide Africans and Indians, the brutality of *apartheid* is driving them together. There is, however, resentment among the Africans to Indian prosperity and social exclusiveness, but there is also increasing awareness that Indians themselves are victims of white supremacy policies.

In East Africa, the story has been somewhat different. Indian traders were common in East Africa even before the British. But after the establishment of British rule, the flow of labour and traders from India increased rapidly. As compared with the Africans, Indians in these territories were given slightly preferential treatment. They soon established themselves as traders and skilled workers. For a time they were indispensable for the development of the territory. It was Sir Winston Churchill who said, "It is the Indian trader who, penetrating and maintaining himself in all sorts of places to which no white man would go or in which no white man could earn a living, has more than anyone else developed the early beginnings of trade and opened up the first slender means of communication". The Royal Commission on Land and Population in East Africa recorded that the Indian traders, "constituted the institutional framework which now makes possible the evolution of prosperous modern States in East Africa".

The largest number of Indians in East Africa is to be found in Kenya, where they are estimated to number 174,000, or 2 per cent of the total population. Tanganyika has an estimated 87,000 Indians, less than 1 per cent of the total, and Uganda has about 76,000, again less than 1 per cent of the population. The other significant number of Indians is in Zanzibar and Pemba, estimated in 1948 to be 15,800 or 5 per cent of the population.

* *This figure includes both Indians and Pakistanis.*

In East Africa there is no white artisan class. This role has been assumed by Indians and other Asians. In 1959, the number of Indians employed in private industry and commerce in Kenya was proportionately the highest, 25,050. There were only 12,033 Europeans classified in the same category. A section of the Indian community has become rich and prosperous by trading and money lending. How privileged their position is can be imagined when it is realised that in Uganda, for example, the retail trade of the country is in their hands besides a large share in the export trade. For example, in 1959 India occupied the second highest place on the list of countries importing from Uganda her share being 17.4 per cent of Uganda exports. In East Africa as a whole the strength of the Indian position is reflected in trading figures. In 1958 and 1959, India was fifth among the countries exporting to East Africa and the fourth on the list of importing countries.

Politically, the story is different. It has been one of constant denial of political rights to the Indians and their fight for such rights. Sometimes they have been treated as a privileged community as compared with the Africans but on the whole their position has been similar. But even before they can become established in Africa as common citizens, the African revolution has caught up with them. They are up against the resentment of the Africans who see them as no better than second-class exploiters and collaborators with the European settlers. The Africans view them as a stumbling block on the road to economic equality and unless they can be convinced that Indians do not wish to retain any privileges not available to the African, the future of Indians in Africa is dark indeed. Unfortunately, there is little to indicate that the Indians in Africa or their leaders take such a realistic view of the problem. Repeatedly, they have appeared as partners of European settler interests in Africa. Under these circumstances African hostility has not unnaturally taken a violent form in recent years in places like Uganda and Kenya. There have been persistent reports that many Indians are leaving Africa in panic. The attitude of the Government and political leaders in India, on this question has been a correct one. They have advised Indians to become citizens of their adopted land and not to demand any special privileges. It is unlikely, therefore, that any significant support will be given by India to the Indians in Africa if they insist on their own privileges.

But have the Indians in Africa realised their danger and opportunity ? It hardly seems so. An article by Mr. R. B. Pandya, an Indian leader from Kenya published in the Indian magazine *Seminar* of June 1960, reads in part, ". . . we should not be placed in a situation by which we may have to exchange the domination of white racialism for that of black racialism with the significant difference that while the former is benevolent, satisfied, contented, civilised, experienced in the art of human justice and fairness, the latter is narrow-minded, greedy, hungry, frustrated, grasping, suffering from a supposed sense of grievance, violent in heart and capable of slipping back to tribal savagehood".

The racial arrogance of these sentiments apart, it seems incredible that such an attitude could be taken by an Indian in Africa in the year 1960.

**A view from the VHF aerial tower of the multichannel station, Accra, Ghana**

# Radio Tone
# the Af

DIVERSE AS THE RESPECTIVE OUTLOOKS of the new African countries may be, they all have a common need in having to further their economies by developing their natural resources as rapidly as possible. To do this calls for vigorous action on many fronts. Roads, railways and perhaps harbours have to be provided, for the potential wealth of rich mineral deposits or of fertile agricultural land is valueless if it is all but inaccessible.

Hand in hand with progress on these lines goes the need for telegraphic and telephonic communication. It is in fact difficult to over-estimate the value, in terms of commerce, of an efficient communications system; there are a great many authenticated instances where a primitive, inefficient system has been replaced by a modern one, only to find that the traffic rapidly increased by leaps and bounds to a point where a further increase in traffic handling capacity was necessary. In short, an efficient service breeds a demand. Professor Parkinson might well propound a new law to cover the situation, but a working rule for Posts and Telegraphs authorities seems to be "Visualise the maximum traffic-handling capacity required and then double it".

The first decision to be made is which of three main methods shall be enlarged—namely, a pole-and-wire system, coaxial cable, or point-to-point radio links. Of these, the issue is usually between the first and the last-mentioned as most suited to general requirements, particularly in the matter of costs.

The final choice between pole-and-wire and radio link is more difficult and depends largely on a close study of the conditions under which the system has to work; as a generalization the pole-and-wire system is perfectly satisfactory and probably rather cheaper to construct in countries where the climate is temperate and the topography easy, but in areas where tropical storms can wash away the poles, where wild animals can do extensive damage (giraffes and elephants are notorious in this respect), or where the route lies over mountain ranges, rough bush and virgin forest the radio link really comes into its own, particularly in terms of overall reliability and lower maintenance costs.

It is, therefore, not surprising to find that Africa has plumped heavily for such links in her various communications systems. It is, however, a matter for remark that Nigeria possesses the world's largest multichannel communications network of the most up-to-date character, and that other areas, notably Ghana, British East Africa, Portuguese West Africa and Northern and Southern Rhodesia likewise make extensive use of radio in their modern efficient communications systems. These installations are indicative of the progressive thought and general outlook which is so characteristic of the new Africa.

Nigeria's system, for instance, covers well over 90,000 channel-kilometres. The story starts in the early 1950s when the Marconi Company of England were invited by the Nigerian Administration to carry out an extensive survey. The Company's subsequent proposals for a nation-wide point-to-point twin-path radio telephone system were adopted and a contract was awarded them by the Nigerian Posts and Telegraphs Department. The whole scheme was carried through according to plan, with section after section coming into operation in sequence. Within three years the network was completed in its original conception and on 27 March 1958 the Nigerian Minister of Communications and Aviation officially inaugurated the service. Shortly afterwards two further considerable contracts were placed with Marconi's for further extensions which have now been in operation for some time.

The Nigerian system extends from Lagos northwards to Ibadan where it branches, one "leg" continuing north-eastwards to Kaduna, while another strikes eastward to Enugu. A further link from Enugu follows roughly the course of the Niger to join the Ibadan—Kaduna link half-way along its route. Communications in the area of the Nigerian Cameroons have also been extended by the provision of radio links between Buea and Aba and between Buea, Mamfe and Bamenda.

A multichannel radio system to connect the wealthy mining interests around the Jos plateau into the national network has also been implemented, with the installation of the first phase Jos to Bauchi of the "Plateau Scheme" which will eventually extend to Yola.

By this means first-class trunk telephone services are in operation between all the places mentioned; it is, furthermore, now possible to telephone from Lagos to many provincial towns whose local services have not previously been connected into a national network.

The entire service is a highly efficient one; this is due in considerable measure to the far-sighted policy of the Nigerian P and T authorities in providing an extensive training scheme, run by the Marconi Company, for Nigerian technicians, who will gradually take over the maintenance of the entire scheme from the Marconi engineers.

# Tones Link Africa

Another extensive scheme is in operation in East Africa, where as long ago as 1949 experimental work with Marconi multichannel radio link equipment was carried out.

For this purpose a temporary link, the first of its kind in the Commonwealth (outside the UK) was installed and remained in operation for some three years. From this seedling has grown a Marconi-equipped system extending from Jinja in Uganda to Dar-es-Salaam in Tanganyika, and linking such important centres as Kampala, Nakuru, Nairobi, Mombasa, Tanga and Zanzibar.

Portuguese West Africa also posseses a modern multi-channel radio link system; this links the town of Luanda, Malange and Marechal Carmona in Angola, and represents that country's first excursion into very high frequency point-to-point radio links. It is, however, a prelude to the construction of a much larger system.

Ghana likewise is very much to the fore in radio telecommunications. An original project provided a twin-path radio link between Tamale in the north, Palbusi, Salanga, Prang, Abuo, Ejura, Mampong and Kumasi and this was subsequently extended to Takoradi via Mpraeso, Korforidua, Akwapim, Accra, Winneba and Cape Coast, terminating in the new Telephone Exchange built at Takoradi by the Ghana P and T authorities. Recently completed extensions to this scheme are two further links—Kumasi to Sunyani, and Accra to Ho.

These are but some of the systems which perform a vital task in the field of radio telecommunications in Africa today, and extensive as they already are, they by no means represent finality. Plans are afoot for further extensions and improvements. Modern automatic telephone exchanges, for instance, are coming into operation in various countries.

What form does a radio link system of this character take? A popular lay misconception conjures up a picture of someone wearing headphones and tuning in a complicated mass of radio equipment, but in point of fact nothing could be further from the truth.

The user is the ordinary telephone subscriber of the home or office who, when he wants to talk to someone at the other end of the country, merely picks up his telephone and asks the Exchange to connect him. That is all there is to it, and he probably does not know that his voice is being carried by radio and not by wire. The exchange switches the call through to an available channel of the radio terminal, where the speech is used to modulate a VHF (Very High Frequency) radio wave and the two are transmitted, not as in the case of a broadcasting system, more or less impartially in all directions, but in a concentrated beam directed towards a given point.

We have, therefore, the terminal radio station shooting out its beam for a distance of, let us say, 40 miles in a given direction. At a point well within this distance a repeater station picks up this transmission, amplifies it and retransmits it on a slightly different frequency to another repeater some 40 miles or so further on towards its ultimate destination. Here yet another repeater carries out the same process and in this way the signals are carried to the radio terminal at the far end of the circuit. At the terminal the voice and radio frequencies (which were combined at the onset) are separated and the voice frequencies are routed through the usual telephone exchange circuits to the recipient subscriber's home or office.

The overall picture, therefore, is of the two terminal stations linked by a series of repeater stations which convey the signals from point to point in a series of relatively short hops. For two-way communication, of course, there must be transmitting and receiving equipment at either end, and also a further transmitter/receiver installation at each repeater; this repeater equipment is not, however, bulky, and a small cubicle suffices to house the entire installation. The aerials used are short, usually stacked rods in a so-called "Yagi" arrangement supported on a single tower.

The advantages of such a system are very considerable; a greater degree of privacy can be obtained than with a pole and wire system; but at the same time there are no poles and wires to suffer in time of storm, flood or other hazards of the area. The capital cost, of course, depends upon the nature of each individual installation, but on average it can stand comparison. The overwhelming benefit, however, is the reliability of the service which is a boon not to be over-valued in areas where centres of population lie at considerable distances from each other, often with wild and inhospitable geographical conditions separating them.

Such then is a brief account of how, quietly and efficiently behind the scenes, radio is playing its not inconsiderable part in the development of the Africa of the mid-twentieth century.

"Yagis" being assembled before erection

# Steel Industry for Nigeria?

Approval has been given for the preparation of proposals for the establishment of an iron and steel complex in Nigeria. Under the proposals, an American consortium, led by Westinghouse Electric International Company, will be given one year within which to conduct a detailed investigation, prepare plans and specifications, and propose the capital structure for such an industry. It is envisaged that the resulting company will be chartered in Nigeria, and will make provision for equity participation from Nigerian sources. In view of the vast cost of such a complex, it is anticipated that the bulk of the capital will come from American organizations. Statements by those already interested indicate that this is a significant expression of American confidence in the future political stability and economic viability of Nigeria. Mr. Wallace M. Riley, Vice-President of Westinghouse International and Regional Director for Tropical Africa, stated that the team of experts organized by his company and their association has been awaiting this action by the Federal Government and are prepared to begin work immediately. Initial field work is expected to occupy four to five months. Thereafter, approximately two months will be required to correlate data and prepare the final feasibility report. The remaining six months will be spent in negotiating for the required capital and preparing the ultimate proposals.

It is the plan of Westinghouse International to study the potentialities and economic factors of Nigeria as a whole, including all Regions. These facts will then be correlated with all known processes for the manufacture of iron and steel in order that not only the location but the type of plant adopted will be tailored to the needs of the Nigerian economy. It is hoped, too, that the final proposals will constitute a basis on which to establish increased trade between Nigeria and her West African neighbours.

The costs of the survey are being met jointly by the Westinghouse consortium and the Rockefeller Brothers Fund.

## *Big increase in UN Technical Assistance*

Technical assistance activities carried out under the Expanded Programme by the United Nations and related agencies are expected to reach a new peak in 1961 and 1962. The total cost of projects for the two-year period will amount to $84.6 million, or an annual average of $42.3 million, as against $34.3 million in 1960, $35.9 million in 1959 and $34.8 million in 1958. This forecast is made in a report prepared by the Technical Assistance Board (TAB), the coordinating body of the Programme, for the Technical Assistance Committee, the 24-nation policy-making authority for the technical assistance activities of the UN.

The most striking feature in the figures for regional costs is the big jump in Africa's share in the total programme to 28.4 per cent in 1961-62 as against 15.7 per cent in 1960. Africa, where the United Nations proposes to spend a total of $20.1 million in the two-year period 1961-62, now ranks first among the five regions receiving technical assistance. The share of the other regions, expressed in percentages of the total, is 27.24 for Asia and the Far East, 22.0 for Latin America, 15.3 for the Middle East, 5.3 for Europe and 1.8 for various inter-regional projects.

The programmes provide for 5,304 experts to be given assignments in less developed countries in 1961 and 1962, an average of 2,652 for each year. This is an increase of approximately 300 over 1960. At the same time, 5,722 fellowships are to be granted to students from less developed countries, an average of 2,861 for each year of the 1961-62 biennium. This is an increase of 802 fellowships over 1960.

## Unesco welcomes 16 new members

In the past few months sixteen new States have become members of UNESCO, fifteen of them being newly-independent African countries. They are: Cameroon, Central African Republic, Congo (Brazzaville), Congo (Leopoldville), Dahomey, Gaboon, Ivory Coast, Kuweit, Madagascar, Mali, Niger, Nigeria, Senegal, Somalia, Togo and Upper Volta.

The admission of Chad and Cyprus will bring the number of UNESCO's Member States to 100.

## UK—AFRICA TRADE STATISTICS

| | *Imports* (£) 1960 (7 *months*) | *Exports* (£) |
|---|---|---|
| Gambia | 1,123,178 | 671,482 |
| Sierra Leone | 3,952,885 | 5,317,647 |
| Ghana | 13,916,569 | 24,610,681 |
| Nigeria | 51,448,868 | 45,181,732 |
| Union of South Africa | 59,933,972 | 59,988,791 |
| S.W. Africa | 3,888,740 | 902,150 |
| H.C. Territories | 2,205,762 | 337,745 |
| Fed. Rhodesia and Nyasaland | 54,012,903 | 27,596,892 |
| Tanganyika | 7,682,605 | 5,474,784 |
| Zanzibar | 154,926 | 417,383 |
| Kenya | 8,103,909 | 17,489,111 |
| Uganda | 3,091,982 | 2,962,812 |
| Somaliland | 29,172 | 454,509 |
| Congo | 3,191,986 | 4,997,018 |
| Algeria | 6,908,641 | 1,780,766 |
| Fr. Cameroons | 138,461 | 317,493 |
| Fr. Equitorial Africa | 622,104 | 588,865 |
| Togoland | 61,566 | 186,669 |
| Fr. Somaliland | 21,522 | 176,972 |
| Malagasy Republic | 686,239 | 379,532 |
| Angola | 241,999 | 2,291,117 |
| Mozambique | 1,994,040 | 3,796,723 |
| Egypt | 5,305,328 | 12,591,366 |
| Libya | 379,317 | 6,949,929 |
| Tunisia | 3,472,710 | 1,456,200 |
| Morocco | 8,182,082 | 2,909,577 |
| Tangier | 123,558 | 188,650 |
| Guinea | 721,323 | 104,532 |
| Liberia | 2,267,970 | 3,329,006 |
| Sudan | 10,184,576 | 10,545,898 |
| Ethiopia | 1,077,339 | 1,303,267 |

# SECONDARY EDUCATION

## . . . Key to Africa's Future

It is a somewhat disturbing experience to visit the best secondary schools in Africa. Boarding schools as old as Mfantsipim of the Cape Coast or King's College in Lagos, or as new as the luxurious Queen's College at Yaba (245 young ladies are given a perfect education at a cost of £60 per year to their parents and £250 to the government) ; modern schools of admirable architecture such as the Gabré Mariam Grammar School of Addis Ababa, or stark and somewhat industrial like the excellent grammar school of Conakry. Everything is "like Manchester" or "like Toulouse". The pupils happen to be African, that is the only difference. As to the teachers and administrators, in exceptional cases as many as 30 or 40 per cent are African, as a general rule, the proportion is closer to one per cent. Secondary education in Africa depends on the foreigner. Civil servants, missionaries, employees of "voluntary agencies", and teachers come from Europe, America or even Asia, as in Ethiopa and on the east coast where there are numerous Indians.

Nobody denies the work accomplished by these various institutions. It is thanks to them that Africa is now taking its place in international life and it would hardly be an exaggeration to say that the independence of the young African nations was born in these grammar schools. What is more, the whole educational system of the new States still rests on these schools and will rest on them for a long time. Nevertheless, they must now be considered inadequate. They are too few in number and except in a few countries, their development would be extremely difficult.

A Unesco enquiry in 22 countries of tropical Africa showed that in fourteen of these countries the proportion of secondary to primary school pupils was less than five per cent. Moreover, there are only four countries where the proportion is higher than seven per cent, which unhappily does not mean that out of one hundred pupils more than seven complete a secondary course and can pass the examinations corresponding to the British General Certificate of Education (Advanced Level) or the French baccalauréat. To give one example, there are approximately 5,000 Africans in Kenya secondary schools against 580,000 in the primary schools. In 1959, only 605 boys and 49 girls obtained the Cambridge School Certificate which must be followed by another two years' school before it is possible to enter a university or technical college.

The schools at present in existence would probably suffice to train good candidates for higher education, but it would be a great mistake to regard secondary education as a mere stage and to imagine that only enough students are needed to fill the universities.

On the contrary secondary, education should be regarded as a type and level of education with its own ends and which is sufficient in itself when it provides a unified training without necessarily leading on to higher education. It justifies itself as an element in raising the nation's cultural level and also, as African educationalists emphasise, as a factor in economic, social and political development. Secondary education is one of the necessary conditions for the efficient carrying-out of a number of posts in commerce and the civil service. In the rural development programmes which are so vital to Africa today secondary education is indispensable for certain responsible positions, such as secretary or treasurer of cooperative societies.

The gaps are still more serious as far as technical secondary education is concerned. Ghana, for example, has not so far been able to set up and maintain a single secondary technical school, despite the fact that it has more than 500,000 pupils at school in a population of 5 million, despite its many secondary schools, its excellent vocational training courses, its 400 students at Accra University and almost as many at the Kumasi School of Technology, and despite its admirable school-radio system.

It is easy to understand the reasons for these shortcomings. The first is that until recently it was not thought that industrial development would take place in the independent African nations. Additionally, whereas until a few years ago there were enough foreign teachers to teach languages, mathematics, Latin grammar and similar subjects, it has always been very difficult to send abroad good instructors in engineering or electricity, good masters of industrial design and applied science.

Even so, the equipment, the machines and the material is arriving much faster than the teachers. And already, in general secondary education as in technical education, it is the lack of masters which is everywhere causing a disturbing situation to arise. It is to be hoped that all the nations in a position to send teaching staff abroad will heed the appeal of the African countries.

Independent Africa will not obtain the complete educational system it should have and wishes to have so long as it must rely exclusively or almost exclusively on outside assistance which at best will suffice to keep education at is present level. Bilateral or multilateral assistance should henceforth be primarily devoted to the *training* of African teachers for general and technical secondary education.

Africa possesses not one establishment for the training of technical and vocational teachers. As to teachers of literature and science, they can only be obtained from the universities which are only just beginning to provide the graduates needed by industry, hospitals, the big agricultural plantations and the civil service. Six hundred of the thousand students at Ibadan University in Nigeria are studying science, medicine and economics ; the 400 others are not all studying education. This is only one example, but it is typical of most of the countries with which we are concerned. It is therefore vital to speed up teacher training by all possible means if a very serious crisis in secondary education, and hence in education at all levels, is to be avoided.

The Ministers and Directors of Education of countries in Tropical Africa who met a year ago in Addis Ababa were fully aware of this situation. They made an urgent appeal to Unesco requesting assistance in the creation and operation of regional institutions for training the staff needed primarily for secondary schools. (Unesco.)

# FACTS ABOUT . . .

## *South-West Africa*

THE TERRITORY of South-West Africa lies on the west coast of Africa directly adjoining the Union of South Africa, by whom it is administered.

Originally a German colony South West Africa was passed under mandate to the Union by the League of Nations in 1920. The Government is by an Administrator, appointed by the Union, and the Legislative Assembly consisting of 12 elected members and six members appointed by the Administrator. For administrative purposes the the country is divided into the Police Zone, covering the area of European settlement and almost three-quarters of the land surface and the Tribal area to the north where Africans are mainly in control of their own affairs.

In the Police Zone the African peoples are the remnants of tribes cruelly decimated by the Germans, chief among which are the Herero.

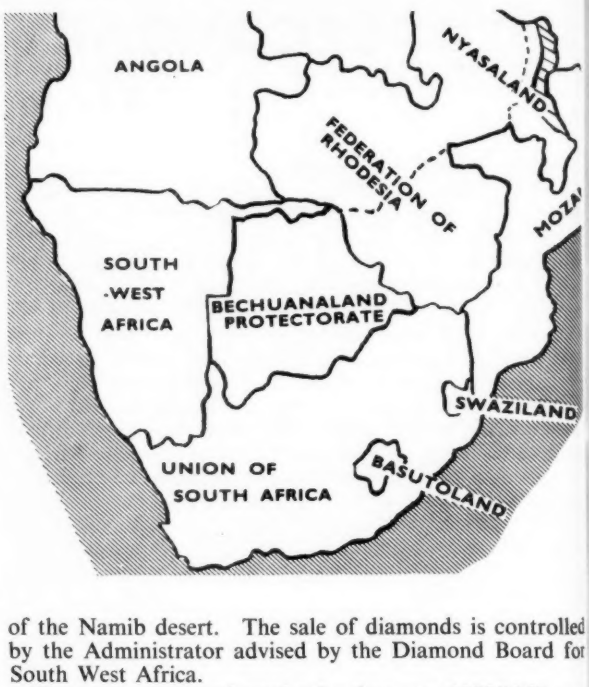
The area is 317,725 square miles which includes the Caprivi Strip or Zipfel which runs above the Bechuanaland Protectorate. The population in 1956 was given as 511,000 of which 62,000 were white. Walvis Bay, the main port, is controlled by the Administration of S. W. Africa but still remains an integral part of the Province of the Cape of Good Hope.

The economy of the country has expanded rapidly since 1946, but is largely of the colonial type and heavily dependent on the companies mining the gem diamonds and base metals. The De Beers monopoly has a controlling influence in this field.

Livestock raising, fishing and minerals are the main industries. Between 1955/1957 there was an average of 1,173,000 head of cattle, 3,117,000 sheep and 500,000 goats. These are found over the whole country except in the north and south-east. Cattle are kept mainly for the production of beef and many are exported on hoof to the Union. There are cold storage facilities and an export abattoir at Walvis Bay. In 1907 the German Government introduced karakul sheep. It is from these skins that "Persian" lamb is obtained. Karakul farming is now a flourishing industry.

Fish landings between 1955-1957 totalled 240,000 tons, valued at US $4,954,000. This was all from marine fishing. Fishing is a valuable industry and is helping to diversify the economy. There are six factories at Luderitz carrying rock lobster, or produce rock lobster meal and frozen lobster tails. In Walvis Bay nine factories are in operation of which six process pilchards and three white fish and snoek. Seal meat, oil and furs are also produced at Luderitz and Cape Cross.

Mineral resources are extensive. Lead, copper, zinc, iron ore, tin, titanium, asbestos, manganese, copper, tungsten, silver, marble and graphite are found in workable quantities and other minerals in lesser amounts. Diamonds, by far the most important mineral worked and which amounted to about half the total mineral export were first discovered in 1908 when the railway from Luderitz to Aus was being constructed. Diamond exports in 1957 were valued at £15.9 million. Deposits are found from Walvis Bay to the Orange River and southwards along the coastline




of the Namib desert. The sale of diamonds is controlled by the Administrator advised by the Diamond Board for South West Africa.

The average mineral production between 1955/1957 was (tons):

| | |
|---|---|
| Copper ore .. .. | 26,800 |
| Lead ore .. .. | 80,100 |
| Manganese .. .. | 27,400 |
| Silver .. .. .. | 49,200 |
| Tungsten .. .. .. | 93,000 |
| Zinc ore .. .. .. | 32,700 |
| Phosphate rock .. .. | 2,500 |
| Columbium .. .. | 7,300 |
| Diamonds—gems .. .. | 921,000 |
| ,, industrial .. | 11,000. |

There are a number of industries which deal with the processing of raw materials such as breweries, fish and meat canning, bone meal, clothing firms, dye and dressing plants for karakul skins and milk processing concerns. Engineering firms have also been established in the larger towns.

All trade figures are now included in the returns for the Union which maintains a Customs and Excise Union with S.W. Africa. Main imports, however, include among other commodities the following which are shown with average values taken over several years. Foodstuffs £2.6 million; textiles and fibres £3.4 million; metal, machinery and vehicles £7.7 million; oils, waxes, paints, and varnishes £1 million; leather, rubber and manufactures £1.0 million.

Exports consists of live animals £2.7 million; hides and skins £4.2 million; wool £1 million; fish £2.8 million; other agricultural and past oral products £1.6 million; diamonds £12 million; copper, tin and vanadium £439,655, other ores £7.6 million.

Walvis Bay handles some 90 per cent of the external trade, the other port is Luderitz which lies to the south. The main airport is at Windhoek which is served by South African Airways which fly direct to Johannesburg where connections for international routes can be made.

# Economic Survey

## West Africa

### *W. Nigeria to Raise Loans*

Western Nigeria seeks to borrow £30 million to help finance its ambitious £165 million Five-Year Development Plan aimed at hastening its industrial and agricultural development. The full capital programme cost of the Five-Year Plan, which went into effect last April, is £68.3 million. The Government says it can find £39 million from its own internal sources but the £29 million gap will have to be filled from loans outside the Region.

During its first Five-Year Plan, which ran from 1955-60, Western Nigeria spent approximately £120 million to bring in such amenities as free primary education, free hospitalization for those under 18, and a host of other social reform measures. The money, which went on both current and capital works, was raised without appealing to external sources. Chief J. A. O. Odebiyi, Minister of Finance, recently said that he hoped that more favourable conditions will prevail between now and 1965 and that the £30 million gap can be appreciably narrowed. He predicted that the Region will create additional revenue surpluses and that more funds will be forthcoming from the Western Nigerian Marketing Board's trading surpluses.

Under the Nigerian Constitution, the Regional Governments must go through the Federal Government to obtain loans. At present, Western Nigeria's public debt is only £11 million—£10 million of which represents a loan from its own Marketing Board.

### *Big Nigerian Air Survey*

A British aerial survey company, Fairey Air Surveys Ltd has been awarded a large survey contract by the Nigerian Federal Government.

The contract covers an aerial photographic programme of some 25,000 square miles in the three regions of the Nigerian Federation—East, West and North. The resultant mapping will be used in the general development of Nigeria.

The contract will involve one aircraft and a photographic and navigation team for about six months, based on the Federal capital of Lagos. As the programme develops the aircraft and its team will also operate from various centres throughout Nigeria starting at Enugu and then Benin City.

The area to be surveyed is a combination of scrub, jungle, and agricultural land and has gone largely unphotographed in the past because of the extremely bad weather conditions.

## East Africa

### *Aerial Survey for Uganda*

An agreement has been signed between the Protectorate Government and the United Nations Special Fund for the carrying out of an aerial geophysical survey in Uganda.

The survey will be with the object of assisting mineral exploration in certain parts of this country. Tenders will now be invited from aerial survey contractors, and it is expected that work may start in the first half of this year.

The agreement covers the plan of operations drawn up between the Fund and the Protectorate Government. Under this, the Fund will provide $313,500 (£104,133) for the aerial survey and the Protectorate Government £40,000 —£17,000 of which will be in cash and the balance by way of services. After the aerial survey is completed, the Protectorate Government will follow up with a ground survey which will involve keeping three survey parties in the field.

### *Rail Extension to Lira and Gulu*

East African Railways and Harbours have approved in principle the extension of the Soroti branch line from Lira to Gulu. Construction of the line from Soroti to Lira has already been authorized at a cost of £670,000 and work has started on this project. The further extension of the line from Lira to Gulu—a distance of about 65 miles—is estimated to cost £686,000, provided that construction is merged with that of the line to Lira.

Like the extension line to Lira, the proposed new extension would go through productive populated areas in Uganda. There was also the possibility, once this extension was approved of, considering a further extension to the navigable waters of Lake Albert.

### *New Kenya Tea-Growing Venture*

The Kenya Government and the Colonial Development Corporation announce that, subject to approval by the Legislature, agreement has been reached on plans to promote the growing of tea by African smallholders in the Central, Nyanza and Rift Valley Provinces of Kenya. Plans envisage the development of 9,000 acres of smallholder tea, involving the provision of finance estimated at £960,000 over eight years.

The control and supervision of such development will be the function of a new statutory body, known as the Special Crops Development Authority. The Authority will take over from the Kenya Government and the Provincial African Grown Tea Marketing Boards the responsibility for supervising the development of the 2,320 acres of smallholder tea already planted, the existing nurseries and the tea factory at Ragati. The Authority will also provide assistance, control and supervisory services for the development of the further 6,700 acres of tea to be established to complete the present programme, will provide stumps on convenient terms, and will set up an organization to buy green leaf from the smallholders and transport it to the factories. The tea development will be carried out in close association with the Department of Agriculture.

CDC has undertaken to lend up to £900,000 and the Kenya Government will lend £60,000 in addition to financing expenditure on the necessary access roads and staff housing. The Authority's expenditure will be financed by these loans during the earlier stages. The scheme is designed to pay for itself on a completely economc basis.

The scheme which provides for tea growing by some 9,000 smallholders has certain important aspects. First, it will

expand the growing of tea by Africans from the present small areas to other potential tea growing areas of Kenya, increase the number of growers who will gain from this crop, and bring a vitally needed cash income to those living in the high areas along the forest edge of Mount Kenya and the Aberdares and elsewhere where it is too cold for coffee and for many of the staple food crops. If the initial programme proves a success, the Authority should be a means of promoting considerable expansion beyond the limits now planned.

### *Williamson Diamond Monopoly ended*

**New prospecting scheme in Tanganyika**

On 1 January 1961 the Williamson Diamonds monopoly for diamond prospecting in Tanganyika came to an end and from that date authorities to prospect for diamonds will be allocated to selected mining concerns on application.

The Territory has been divided into 24 "blocks" averaging more than 15,000 square miles each. Williamson Diamonds Ltd—in which the Government had a half share and which had pioneered prospecting on a large scale in the Territory—will have a prior choice of four blocks, the choice to be made by 1 July 1961.

The decision had been made in the public interest and the Government hoped that if other mining companies came in to prospect for diamonds they would seize the opportunity to prospect for other minerals also. Companies could apply for more than one "block" of 15,000 square miles and had to be prepared to give an undertaking to spend £30,000 a year on each block for prospecting.

These authorities would be valid for a period of 3½ years with the proviso to surrender two-thirds of the area within 2½ years. At any time within the period of 3½ years a prospecting company might apply for an Exclusive Prospecting Licence or Mining Leases. The Government's intention was to consider applications only from established mining concerns, who had the resources and know-how to participate in a prospecting programme of this magnitude.

## North Africa

### *Report on Libya's Economy*

"The Economic Development of Libya," the report of an economic survey mission organized by the World Bank, at the request of the Libyan Government, has been published by the John Hopkins Press.

The report, the first comprehensive description of the Libyan economy published since Libya became independent in 1951, reviews the important role played by foreign aid in making good war damage and laying the foundations for further economic progress. It makes specific recommendations for an economic development programme to be undertaken in the next five years, taking into account the long-term possibilities opened up by the recent discovery of oil and its impact on the economy.

In drawing up the programme, the mission proceeded on the assumption that, while the discovery of oil holds out the long-term prospect of establishing a prosperous economy, the petroleum industry is unlikely in itself, either directly or indirectly, to provide employment and wages for more than a small fraction of the Libyan people. The report, therefore, addresses itself mainly to measures that should be taken to develop other sectors of the economy so as to promote the well-being of the nation as a whole.

The report, a single volume of over 500 pages, is obtainable either from the John Hopkins Press, Baltimore 18, Maryland, USA, or from the Oxford University Press, Amen House, Warwick Square, London, EC 4.

## Central Africa

### *9 CDC Projects in Central Africa*

In the Federation of Rhodesia and Nyasaland there were 9 CDC projects for which £22,054,000 capital had been approved by June 1960.

Projects include the production of tobacco, tung oil, and cement, two African housing schemes, an industrial promotion corporation, a sum of £15m approved for investment in the great Kariba Hydro-electric scheme, and investment in an airways corporation.

In Nyasaland the Kasungu Tobacco Estates project in cooperation with the Nyasaland Government is developing a smallholder scheme thereby helping African farmers to produce and market flue-cured tobacco. Tung oil, the low price of which has caused anxiety regarding CDC's Vipya Tung Estates, is still an uncertain market. The abundant supplies of power which will become available from the Kariba scheme (the first supplies from which were delivered to the Copper belt on 1 January 1960) will, it is anticipated stimulate the expansion of industry throughout the Federation. The new Industrial Promotion Corporation of Rhodesia and Nyasaland Ltd, in which CDC has invested through its subsidiary, Rhodesia and Nyasaland Development Corporation Ltd, was formed to assist this expected expansion.

In Northern Rhodesia, Chilanga Cement Ltd, which supplied the major portion of the cement for the construction of the Kariba Dam, has been faced with the task of rebuilding a market to replace the Kariba demand. Sales to other users had about doubled by mid-1960. This company is of particular interest in that it was the first CDC project to evolve from a directly managed concern into a commercial company with a significant part of its capital held by the public.

### *DLF Loan Approvals*

The Development Loan Fund have given a list of loans and allocations approved between 1 January and 30 September 1960, as follows :

| | | Dollars |
|---|---|---|
| Ghana | Volta River Project | 20,000,000 |
| Tanganyika | Road Building | 1,900,000 |
| Tunisia | El Aouina Jetstrip | 5,100,000 |
| Tunisia | Oued Nebana Dam | 18,000,000 |
| Tunisia | Railways (addition to previous loan) | 350,000 |
| UAR/Egypt | Bagasse Pulp Mill | 6,700,000 |
| UAR/Egypt | Edfina Canning and Freezing | 200,000 |
| UAR/Egypt | Egyptian Industrial Bank | 7,000,000 |
| UAR/Syria | Syrian Industrial Bank | 5,000,000 |
| UAR/Syria | Telecommunications | 2,500,000 |

# TRADE NOTES

## New Rubber Plant for Western Nigeria

Construction of a new £139,000 rubber processing factory by the Western Nigerian Development Corporation began early in January.

The factory which is sited at the Araromi rubber estate will make sheet rubber, lumps and crepe from latex produced at the plantation.

Tapping will begin early in April on 423 of the plantation's 8,000 acres. An average yield of 1,200 pounds per acre a year is expected from the budded cloves planted on the estate.

## Nigeria's Largest Single Industrial Enterprise

**£4½ million cement factory opened**

Nigeria's newest and largest industrial plant, the £4½ million Ewekoro Cement Factory at Abeokuta, was opened in December by the Governor of Western Nigeria.

Incorporated in February 1959, the plant when in full production will turn out 200,000 tons of cement annually—drawing on Western Nigeria's virtually inexhaustible supply of limestone as its basic raw material. The plant is a joint venture between the Western Nigerian Government, the Associated Portland Cement Company and the United Africa Company. Portland Cement has 51 per cent of the shares ; the Western Nigerian Development Corporation has 39 per cent and the United Africa Company has 10 per cent. Plans call for the factory to operate 24 hours a day, turning out 40 bags of cement every minute. At full production, company officials estimate that it will supply two-fifths of Nigeria's present cement requirements.

The two basic ingredients of cement—limestone and shale—abound in the Abeokuta region.

During normal operating conditions, the number employed will be 300 Nigerians and 30 expatriates.

## New Motor Vessel for Palm Line

Another cargo liner for Palm Line was launched in December. The new vessel was named *Ikeja Palm* by Lady Ojukwu, in the presence of a large number of guests of the builders.

*Ikeja Palm* is the third ship of her class—*Ibadan Palm* and *Ilorin Palm* are already in service. She is a motor vessel of 8,800 tons deadweight, built to a specification embodying the long experience of the Company in the highly competitive West African Trade.

## Possible New Industry for Nyasaland

The Nyasaland Government is investigating the possibility of establishing an essential oils industry in the protectorate. A British ecologist, Mr. J. S. Douglas, claims that Nyasaland contains the essentials, variety of climate, and districts ideally suited to the cultivation of aromatic plants.

## Umtali Paper Mill Expands

Newsprint to meet most of the Central African Federation's needs will be manufactured at the rate of more than a ton an hour, when the Umtali Board and Paper Mills' new £750,000 extension paper mill starts production late in 1961. Building is well under way on the firm's vast extension programme. The general manager of the firm, Mr. R. H. Annan, said this would be the first time newsprint was manufactured in the Federation.

# *Personalities*

## Ghana Airways Stewards

Pictured with Chief Instructor, Mr. H. J. Lawrence, at the BOAC Cabin Services Training School at London Airport are twelve Ghana Airways stewards who have just completed a two months' training course at the school. On graduation they will fly on Ghana Airways services in West Africa and to Britain and the Middle East. They are left to right : Front row—S. G. Denteh, E. A. Djannie, A. C. Hayford, E. Osei, P. R. Taylor C. A. Welbeck ; Back row—H. G. Afful, W. Agyekum, J. Asante, R. K. Beecham, J. M. Boatang, D. Y. Brobbey.

## Duke of Kent for Sierra Leone Independence

The Duke of Kent is to be the Queen's special representative at the Sierra Leone independence celebrations next April. This will be the Duke's first official overseas visit on behalf of the Queen. He will travel to and from Sierra Leone by air and will arrive there shortly before Independence Day.

## New Governor of Eastern Nigeria

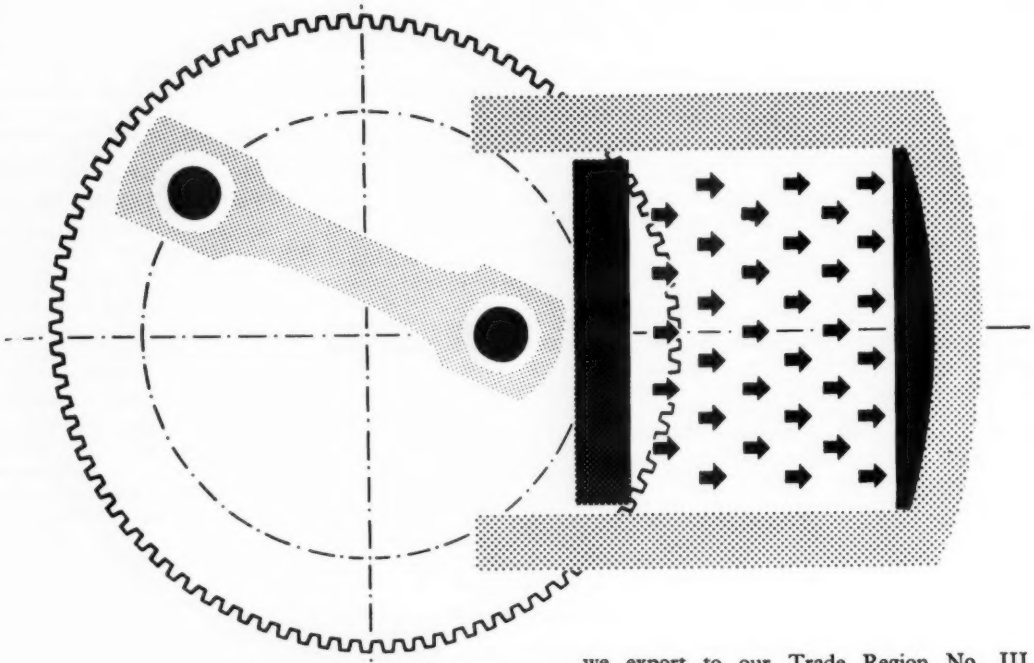
Sir Francis Akanu Ibiam, KBE, the new Governor of Eastern Nigeria, was born at Unwana, Eastern Nigeria, about 62 years ago.

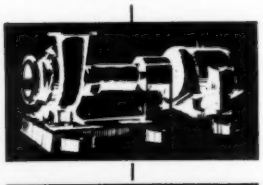
He was educated at Hope Waddell Training Institution, Calabar, and at King's College, Lagos. He later went to St. Andrew's University, Scotland, where after five years he graduated in medicine in 1936 and returned that year to join the service of the Church of Scotland Mission's Medical Service. He worked at Abiriba, Afikpo, Itu and other rural stations of the Mission.

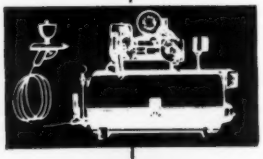
He was a member of the Governor's Executive Council in Lagos from 1946 to 1951 ; member of the Eastern House of Assembly and the old Legislative Council from 1947 to 1951 ; and member of Eastern House and the House of Representatives from 1951 to 1953. Later he quit politics voluntarily, following the crisis that led to the dissolution of the Eastern House.

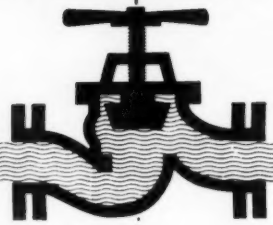
He has remained a Christian missionary since his return from St. Andrew's and has been chairman of the Christian Council of Nigeria for several years. Late in 1958 he was appointed first Nigerian Principal of Hope Waddell, his *alma mater*, the first old boy to occupy that post. He has also been member and is now Chairman of the Council of University College, Ibadan.

## FOR ALL FIELDS OF APPLICATION









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